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EXAMINER

ART UNIT	PAPER NUMBER
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14

DATE MAILED:

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel):

(1) Attorney Lawrence Harbin (3) Examiner Shick Horn
(2) SPE Douglas Olms (4) _____

Date of interview 8-16-96

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description: _____

Agreement ☒ was reached with respect to some or all of the claims in question. ☒ was not reached.

Claims discussed: 1-74

Identification of prior art discussed: Litteral et al, McMullan, Jr et al. Wheeler

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discuss difference
& video-on-demand & ADSL technology, withdrawing claims
17, 19, 20, 24-25 in favor of divisional application, delete
trademark term in claim 1. Applicant presented statement on
Article 19.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

☒ 1. It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph below has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1-7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

☐ 2. Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the substance of the interview unless box 1 above is also checked.

Shick Horn
Examiner's Signature

Statement Under Article 19(1)

New claims 1-21 better define the invention over prior art references of Litteral et al. and Wheeler et al. In particular, the new claims characterize the invention as including a network manager (e.g., hybrid access system) that utilizes a point-to-multipoint shared medium architecture over which a host server communicates with a plurality of remote clients in an asymmetric and interactive communication network. This differs from the point-to-point ADSL bridge architecture (e.g., hub and spoke structure) of Litteral et al. that requires dedicated links between the ADSL bridge and each remote client. Alternatively, a "shared media" system permits multiple users to share common headend resources through a "parallel" or over-the-air coupling. It is noted that Wheeler et al. disclose a medium that is locally shared (e.g., a conventional LAN), as opposed to a host-to-remote shared medium, but even Wheeler et al.'s medium lacks both asymmetry operation and a network manager having the claimed structure to provide the claimed functionality.

Specific functionality provided by the shared medium architecture enables a network manager to provide more efficient sharing of resources and scalability in number of clients, interactive management of downstream and upstream data flow, switching between shared and dedicated logical upstream channels to better match bandwidth demand, assignment of optimum speeds of upstream data rate to respective clients (e.g., bandwidth on demand) based on available upstream bandwidth, as well as, other advantages. Such shared medium architecture for providing split-channel asymmetric interactive full-duplex communication in which remote clients essentially are connected in parallel is not disclosed in any of the cited references.

Apart from differences mentioned above, new claims 22-26 define other features of the invention over McMullan et al. In particular, McMullan et al. fail to show a transmit queue at that transmitting end which enqueues data packets (or acknowledgments) from which redundant packets (or acknowledgments) about to be transmitted are removed from the transmit queue before they are actually transmitted in accordance with acknowledgments received from a transmitter located at a receiving end. McMullan et al. merely show suppression operations at a receiving end and not interactivity between a transmitting and receiving end to remove redundancy of information in a transmit queue. Also, McMullan et al. do not show use of such suppression techniques in a shared medium point-to-multipoint environment as provided by the new claims. Aside from the absence of an interactive network McMullan et al. also do not show "dynamic" calibration of power based on "successive" transmission of different power levels as recited in new claim 23. Instead, McMullan et al. show "manual" power calibration. Further, McMullan et al. do not disclose feedback control of power or other parameters based on a quality characteristic such as a "last operability indication", "signal-to-noise ratio" or "error frequency" as recited in claim 26.